

**REMARKS**

The Examiner's attention to the present application is noted with appreciation, as is the indication of the allowability of the subject matter of claims 9 and 15. New claims 21 and 22 are presented which correspond to that subject matter. Claims 2-5 have been canceled and their subject matters placed into claim 1, except that the final phrase of claim 5 is eliminated.

The Examiner restricted and withdrew claim 20. To expedite allowance, claim 20 is canceled.

The Examiner objected to claim 12 for a spelling informality, which has been corrected.

The Examiner rejected claims 5-8, 11-13, and 16-19 under 35 U.S.C. § 112, second paragraph, as indefinite. As to claim 5, which has been canceled, the entirety of the isocyanate may not be reacted in the first reaction, and so some can be available for the second reaction. As to claim 8, antecedent basis has been established. As to claim 11, "impregnated" is deleted and "thereby" added in front of "formed intermediate material" to clarify the antecedent basis for that element. The issues with claims 12 and 13 are believed obviated by the incorporation of claims 2-5 into claim 1.

The Examiner rejected claims 1, 2, 5, 10, and 14 under 25 U.S.C. § 102(b) as being anticipated by Joseph et al. ("Joseph"), rejected claims 11, 16, and 17 under 35 U.S.C. § 103(a) as being unpatentable over Joseph, and rejected claims 2-4 under 35 U.S.C. § 103(a) as being unpatentable over Joseph in view of Hesselmanns et al. ("Hesselmanns"). The rejections are traversed, particularly as to the claims as amended.

We first summarize the present invention in light of U.S. Patent No. 6,893,683, which is derived from Hesselmanns. The present invention relates to a two-step reaction wherein two reactive systems do react at a substantially different moment. The first reactive system is not reactive or hardly reactive at room temperature and comprises a compound containing an isocyanate function and a compound containing reactive hydrogen, which compound in particular may be a polyhydrazide, polysemicarbazide or carbohydrazide (claims 2-4). After a substrate is coated with the mixture of both reactive systems, the first reactive system is heated to a temperature of 50-200°C for 0.5 to 10 minutes whereupon the coated

material is remoulded and during or after this remoulding process the second reactive system is reacted. This process is an improvement to the process disclosed in the U.S. Patent No. 6,893,683 in which only the first reactive system is described. As pointed out in the present specification on page 1, lines 20-24, the process of Hesselmans has the disadvantage that after reaction the material retains its form so well that treatment such as embossing or otherwise moulding and subsequent fixing of the form poses problems.

With the present invention the presence of the non- or just hardly reacted second reactive system plasticizes the material after the first reaction in a way that it can still be deformed and then the second reaction can be done during or after the remoulding. Accordingly, the present invention provides a process eliminating the disadvantages mentioned in Hesselmans but nevertheless take advantage of its advantages.

Joseph discloses a mixture containing two reactive systems which is coated onto a substrate. According to Joseph a polyisocyanate and a polyol are reacted in the presence of incorporated or external acrylates wherein the double bonds of the acrylates are reacted in a second reaction step by radiation. The disadvantages of a polyol-diisocyanate reactive system are pointed out in U.S. Patent No. 6,893,683, at col. 1, lines 9-22, and according to lines 14-16, "A disadvantage of this method is that the potlife of the mixture is limited to about 3 hours."

An advantage of using the polyhydrazides is that the potlife in combination with a polyisocyanate is much longer as shown in col. 4, lines 44-51, and illustrated in Example 17 of U.S. Patent No. 6,893,683 (col. 11, lines 29-32).

Claims 2-4, which are canceled and incorporated into claim 1, employ the composition of the first reactive system and claim 5, also canceled and incorporated into claim 1, employs the second reactive system. Accordingly, claim 1 reads neither on Joseph nor Hesselmans, and the claim is patentable over the combination because there is no suggestion in either reference that combination with the other would be useful and have the unexpected result of solving the problems of both references. In other words,

Joseph does not recognize the problem of its short potlife and Hesselmans does not recognize that any sort of double reaction would be useful. Therefore, claim 1 as amended and its dependent claims are patentable.

Being filed herewith is a Petition for Extension of Time to September 5, 2006, with the appropriate fee. Authorization is given to charge payment of any additional fees required, or credit any overpayment, to Deposit Acct. 13-4213. A duplicate of this paper is enclosed for accounting purposes.

An earnest attempt has been made to respond to each and every ground of rejection advanced by the Examiner. However, should the Examiner have any queries, suggestions or comments relating to a speedy disposition of the application, the Examiner is invited to call the undersigned.

Reconsideration and allowance are respectfully requested.

Respectfully submitted,

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